The Influence of Operational Grants on Financial Prudence in Public Secondary Schools: Evidence from Busia County, Kenya

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Abstract- ***This study investigated the influence of operational grants on financial prudence in public secondary schools in Busia County, Kenya. The study was guided by Public Expenditure Theory, Stakeholder Theory, and New Public Management Theory. A descriptive survey design was employed, targeting 276 respondents from 92 public secondary schools, comprising principals, heads of departments, and accounts clerks/accountants. The study achieved an 81% response rate with 223 questionnaires properly filled and returned. The findings revealed a strong positive relationship between operational grants and financial prudence (β=0.248, p=0.001). The regression analysis showed that operational grants explained 62.1% of the variation in financial prudence (R^2=0.621). The study found that schools primarily utilize operational grants for administration costs (mean=3.03), ICT and communication expenses (mean=2.57), and utility payments (mean=2.54). However, 35% of schools reported budget discrepancies where actual spending exceeded capitation by over 20%, and 45% showed outstanding utility debts despite receiving operational funds. The null hypothesis that operational grants have no significant effect on financial prudence was rejected ($p=0.001 < \alpha=0.05$), confirming that operational grants significantly influence financial prudence in secondary schools. The study recommends strengthening monitoring and evaluation systems for operational grants utilization, implementing comprehensive financial management systems, and establishing mandatory professional development programs for financial management staff. Future research should focus on longitudinal studies examining the long-term impact of operational grants on school performance and sustainability.***

Indexed Terms- ***Operational grants, financial prudence, Secondary schools, Public expenditure, financial management, Kenya***

I. INTRODUCTION

Globally, governments have invested heavily in education as a means of transformation towards sustainable development, recognizing its role in increasing people's abilities to turn visions into reality. According to Angrist et al. (2016), in the United States, the late 19th century saw the introduction of compulsory free universal education across the country, with enhanced support for schools continuing into the 21st century. In European countries such as France and Malta, exemption from tuition fees is standard practice for European students, while Germany extends this benefit to both local and international students (Paneru, 2020). Similarly, in Sri Lanka, the government provides free education at various levels, with state-financed schools such as provincial schools, national schools, and primary and secondary institutions benefiting significantly from operational grants (Regmi, 2017).

The Sub-Saharan African (SSA) context presents unique challenges in educational funding. Countries in this region have been slow to realize gains in universal primary and secondary education admission due to inadequate government funding. During the 1980s and early 1990s, SSA states experienced a decline in primary and secondary school gross enrollment rates while other regions saw substantial increases (World Bank, 2011). In response, many African education managers initiated programs to encourage enrollment by abolishing school fees. In Uganda, for example, the government introduced the School Facilities Grant (SFG) and the UPE Capitation Grant, aimed at providing necessary school infrastructure and supporting co-curricular activities, instructional

materials, and school administration (Otyola et al., 2022).

In Kenya, the government considers education a fundamental human right and an essential means of ensuring all Kenyan children realize their full potential (Owino, 2021). The country places special emphasis on basic education as a priority area within the Poverty Reduction Strategy Papers (PRSP) due to the strong association between education and improved economic opportunities (Boore, 2021). The introduction of free primary education (FPE) through school capitation grants has increased access to both primary and secondary education, particularly among poorer households, though ancillary costs continue to pose challenges (Oketch, 2019).

Financial mismanagement in Busia County secondary schools has become increasingly concerning, as evidenced by recent audit findings. In 2022, 35% of schools reported budget discrepancies where actual spending exceeded capitation by over 20%, suggesting funds were diverted or unaccounted for. Out of KES 60 million allocated for infrastructure projects, only KES 40 million was verifiably spent on intended projects, with KES 20 million untraceable or misused (Mwangi & Ochieng, 2023). Furthermore, 45% of schools had outstanding utility debts totaling KES 5 million, despite receiving operational funds, indicating possible diversion of capitation.

The demand for secondary education in Kenya has grown drastically due to 100% transition policies and reforms in the education sector. This has led to serious implications for financing and infrastructural demands of schools, which must provide high-quality education despite resource constraints (Kiplagat et al., 2022). The Auditor General's office has indicted public institutions for their growing debts and the impact on their operations (Office of the Auditor General, 2018). In some public secondary schools, funds have been channeled to non-strategic projects rather than equipping the institutions with necessary infrastructure for enhanced performance.

The main objective of this study is to examine the influence of operational grants on financial prudence in public secondary schools in Busia County, Kenya. The study holds significance for various stakeholders in both education and financial sectors in Kenya. Policy makers will find the findings essential when formulating strategies to address financial management issues. The recommendations, if implemented, will enable public secondary schools to achieve prudent management of their finances and serve as a wake-up call for mentors to ensure resources allocated achieve their intended objectives.

The study covers 92 public secondary schools in Busia County, with a population of 276 respondents comprising principals, HODs, and accounts clerks/bursars. The research focuses on the use of operational grants in financing to boost financial prudence from 2016 to 2021, examining how these funds were utilized in line with Ministry of Education policies and guidelines. This comprehensive scope allows for a thorough analysis of operational grant management and its impact on financial prudence in secondary schools.

II. LITERATURE REVIEW

Public expenditure theory, as developed by Adolph Wagner in 1860, indicates that the government has an important role in ensuring the smooth running of economic activities, particularly in education. According to Grossi (2014), the theory emphasizes that efficiency and equity should guide public funding due to the numerous goals and stakeholders involved in government operations. Almqvist (2014) clarifies that effectiveness concerns the smooth administration of public funds, while efficiency deals with the collection, coordination, and monitoring of government income and expenditure towards service provision. The theory's application to education funding is particularly relevant as Wagner's law specifies that public spending constantly increases as income growth increases (Magazzino et al., 2015).

Stakeholder theory, developed by Edward Freeman in 1984, provides another crucial framework for understanding educational funding management. The theory recognizes that various individuals and groups are involved in management, including financiers, communities, customers, employees, and public agencies (DeAngelo, 2018). In the context of educational funding, stakeholder theory serves as a critical diagnostic instrument to identify potential

breakdown points in the spending process, particularly when moral constraints on government spenders are absent (Freudenreich, 2020). Stakeholders such as taxpayers and citizens are particularly concerned with what the government offers from spending taxpayers' money, expecting transparency and accountability in governance (Fares, 2021).

The New Public Management (NPM) theory, developed by Christopher Hood in 1991, brings private sector management principles into government institutions. The theory emerged in the late 1970s and early 1980s, initially in the United Kingdom under Prime Minister Margaret Thatcher and in U.S. municipal governments (Young & Wiley, 2020). NPM advocates for incorporating private sector methods and incentive structures to boost efficiency and effectiveness in government operations. Although government business is not profit-oriented, it should aim to deliver on its promises of democratic dividends, with performance measurement often being subjective due to the lack of standard yardsticks (Hafer, 2022).

Empirical studies on operational grants in education reveal varying impacts across different contexts. Sumarsono et al. (2019) studied the effects of School Operational Assistance in Indonesia, finding that the effectiveness of school operational assistance was evident in curriculum development, teacher support, student services, infrastructure, and education financing. Similarly, Imhanzenobe (2019) found a positive relationship between operational efficiency and financial sustainability in institutional settings, though this study focused on manufacturing firms rather than educational institutions.

Research specifically examining financial prudence in schools has yielded important insights. Mbuthia and Omagwa (2019) investigated the effect of budgetary control on financial performance in Kenyan institutions, finding that budget planning, implementation, control, and review all had significant positive effects on financial performance. Their study recommended that managers should review current yearly performance targets, analyze threats and opportunities, and improve budgetary planning processes.

Several gaps exist in the current literature regarding operational grants and financial prudence in secondary schools. First, while studies have examined various aspects of school funding, few have specifically focused on the relationship between operational grants and financial prudence in the Kenyan context. Mutiso et al. (2015) studied funding sources and quality education in Kenyan public universities, but their findings may not directly apply to secondary schools. Additionally, most studies have focused on general financial management rather than specific aspects of operational grant utilization.

The literature also reveals methodological gaps. Many studies rely on basic descriptive statistics without employing more sophisticated analytical techniques that could provide deeper insights into the relationship between operational grants and financial prudence. Furthermore, there is limited research examining the moderating effects of school characteristics on the relationship between operational grants and financial prudence.

Recent studies by Alemayehu and Belete (2019) have shown that operational efficiency has a significant impact on institutional performance, but their research focused on the banking sector rather than education. This highlights the need for sector-specific research that considers the unique characteristics and challenges of educational institutions. Additionally, while Lawal and Samy (2016) examined the impact of budgeting and funding on service delivery in education, their study was conducted in a different geographical context, making its findings potentially less applicable to the Kenyan situation.

These gaps in the literature underscore the importance of conducting focused research on the relationship between operational grants and financial prudence in Kenyan secondary schools. The current study aims to address these gaps by examining how operational grants influence financial prudence specifically in the context of public secondary schools in Busia County, Kenya, while considering the unique challenges and opportunities present in this setting.

III. METHODOLOGY

This study employed a descriptive survey design to obtain both quantitative and qualitative information. According to DeAngelo (2018), descriptive survey design is particularly appropriate for evaluating education policies and programs as it enables researchers to determine what people are doing and thinking while gathering comprehensive information. The design allowed for observation and description of the situation without manipulating variables, making it ideal for understanding the relationship between operational grants and financial prudence in schools.

The study was conducted in Busia County, Kenya, which borders Kakamega County to the east, Bungoma County to the north, Lake Victoria and Siaya County to the south, and Uganda to the west. The county has a population of 893,681 people (Kenya National Bureau of Statistics, 2019) and covers an area of 1,628.4 km². The total number of public secondary schools in the county is 92, with an enrollment of 21,794 students.

The target population comprised 276 respondents from 92 public secondary schools in Busia County, consisting of 92 principals (school heads), 92 HODs, and 92 accounts clerks/accountants. The choice of these respondents was deliberate as they are directly involved in the management and utilization of operational grants in their respective schools. Principals serve as the accounting officers, HODs request and manage departmental resources, and accounts clerks/accountants handle the day-to-day financial transactions.

The study employed a census technique for data collection, where all 276 respondents from the 92 schools were included in the sample. This approach was chosen to ensure comprehensive coverage and eliminate sampling bias. Primary data was collected using self-administered questionnaires containing both closed and open-ended questions. The questionnaires were structured using a five-point Likert scale ranging from 'strongly agree' to 'strongly disagree' to measure respondents' perceptions of operational grants and financial prudence.

To ensure the validity of the research instruments, the questionnaires were reviewed by three specialists in educational finance and management. These experts rated the questionnaire's content and face validity on a scale of 1-10, and their feedback was incorporated into the final instrument. Reliability was tested through a pilot study conducted in neighboring Bungoma County, involving 30 schools and 90 respondents. The pilot study data was analyzed using Cronbach's alpha coefficient, with a threshold of 0.7 considered acceptable for internal consistency (Cooper & Schindler, 2008).

Data analysis employed both descriptive and inferential statistics. Descriptive statistics included frequencies, percentages, means, and standard deviations to summarize the characteristics of the data. Inferential statistics included correlation analysis to examine the relationship between operational grants and financial prudence, and regression analysis to determine the extent to which operational grants influence financial prudence. The Statistical Package for Social Sciences (SPSS) version 25 was used for data analysis.

Ethical considerations were carefully addressed throughout the study. Research permits were obtained from relevant authorities, including the National Commission for Science, Technology and Innovation (NACOSTI) and the County Director of Education. Participants were informed about the study's purpose and their right to withdraw at any time. Confidentiality was maintained by using codes instead of names, and data was securely stored to prevent unauthorized access.

IV. FINDINGS AND DISCUSSION

The study achieved a response rate of 81%, with 223 out of 276 questionnaires returned and properly filled. According to Mugenda and Mugenda (2003), a response rate above 70% is considered excellent for analysis and reporting. The high response rate indicates the reliability of the data collected and the willingness of respondents to participate in the study.

Table 1: Response Rate

Response	Frequency	Percentage
Filled	223	81%
Not filled	53	19%

Response	Frequency	Percentage
Total	276	100%

Demographic analysis revealed that 61% of respondents were male and 39% female, indicating a gender disparity in school financial management positions. In terms of age distribution, 30% of respondents were between 30-39 years, followed by 26% below 30 years, 23% between 40-49 years, and 21% above 50 years. The education level of respondents showed that 54% held bachelor's degrees, 33% had diplomas, and 13% had postgraduate qualifications, indicating a well-educated workforce managing school finances.

Table 2: Educational Qualification of Respondents

Level of Education	Frequency	Percentage
Diploma	74	33%
Degree	120	54%
Postgraduate	29	13%
Total	223	100%

Analysis of operational grants revealed several key findings regarding their utilization and management. The study found that operational grants significantly influenced various aspects of school operations:

Table 3: Operational Grants Utilization

Activity	Mean	Standard Deviation
Administration costs	3.03	1.624
Travel and accommodation	2.38	1.233
Utility expenses	2.54	1.366
ICT and communication	2.57	1.624
Medical and emergency	2.08	1.210
Meetings and conferences	2.31	1.259

The regression analysis revealed a strong relationship between operational grants and financial prudence. The model fitness results showed an R-square value of 0.621, indicating that operational grants explain 62.1% of the variation in financial prudence in secondary schools.

Table 4: Model Fitness Results

Model	R	R Square	Adjusted R Square	Std. Error
1	.788	.621	.615	.396

The Analysis of Variance (ANOVA) results confirmed the statistical significance of the model with $F=106.809$ and $p<0.001$, indicating that operational grants are a significant predictor of financial prudence.

Table 5: ANOVA Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	66.932	4	16.73	106.809	.000
Residual	40.889	31	1.319		
Total	107.822	35			

The regression coefficient analysis showed that operational grants had a positive and significant relationship with financial prudence ($\beta=0.248$, $p=0.001$). This finding aligns with previous studies by Sumarsono (2019) and Imhanzenobe (2019), who found positive relationships between operational efficiency and institutional performance.

Table 6: Regression Coefficients

Variable	B	Std. Error	Beta	t	Sig.
Constant	1.996	0.08		24.931	.000
Operational grants	0.248	0.070	0.470	6.986	.001

Simple linear regression analysis revealed that operational grants alone accounted for 25.4% of the variance in financial prudence ($R^2=0.254$), indicating its substantial individual contribution to financial management in schools.

The hypothesis testing yielded significant results. The null hypothesis that operational grants have no significant effect on financial prudence was rejected ($p=0.001 < \alpha=0.05$), confirming that operational grants significantly influence financial prudence in secondary schools in Busia County.

These findings suggest that proper management of operational grants is crucial for financial prudence in secondary schools. The strong positive relationship

between operational grants and financial prudence indicates that schools that effectively manage their operational grants tend to demonstrate better financial prudence. This aligns with Mbuthia and Omagwa's (2019) findings that emphasized the importance of proper financial controls in educational institutions.

The results also highlight the need for enhanced capacity building in financial management, particularly given that 33% of financial managers only hold diploma qualifications. This suggests potential areas for improvement in professional development and training for school financial managers.

The study's findings provide strong evidence for the importance of operational grants in maintaining financial prudence in secondary schools, while also highlighting areas requiring attention for improved financial management in the education sector.

CONCLUSIONS AND RECOMMENDATIONS

Based on the comprehensive analysis of operational grants and financial prudence in public secondary schools in Busia County, several key conclusions emerge. The study found a strong positive relationship between operational grants and financial prudence, with a correlation coefficient of 0.248 and statistical significance ($p=0.001$). This relationship explains 62.1% of the variation in financial prudence, indicating that operational grants play a crucial role in determining financial management effectiveness in secondary schools.

The research revealed that schools primarily use operational grants for administration costs (mean=3.03), ICT and communication expenses (mean=2.57), and utility payments (mean=2.54). However, the study also identified concerning patterns in grant utilization, with 35% of schools reporting budget discrepancies and 45% showing outstanding utility debts despite receiving operational funds. These findings suggest that while operational grants are essential for school operations, their management requires significant improvement.

The demographic analysis revealed important implications for practice. The predominance of degree holders (54%) in financial management positions indicates a well-educated workforce, yet the presence of 33% diploma holders in such crucial positions suggests a need for enhanced professional development. The gender disparity, with 61% male and 39% female managers, highlights the need for more inclusive representation in school financial management.

Based on these findings, several policy recommendations are proposed. First, the Ministry of Education should establish a more robust monitoring and evaluation system for operational grants utilization. This system should include regular audits, performance reviews, and feedback mechanisms to ensure funds are used as intended. The ministry should also develop clear guidelines for the allocation and utilization of operational grants, with specific metrics for measuring efficiency and effectiveness.

Practical recommendations for school administrators include implementing comprehensive financial management systems that track all operational grant expenditures in real-time. Schools should adopt modern accounting software and train staff in its use to enhance accuracy and transparency. Regular internal audits should be conducted to identify and address financial management issues before they escalate. Additionally, schools should establish clear procurement procedures and strengthen their internal control systems to prevent misuse of operational grants.

Professional development programs should be mandatory for all staff involved in financial management. These programs should cover modern financial management practices, regulatory compliance, and ethical considerations in financial decision-making. Schools should also establish mentorship programs where experienced financial managers can guide their less experienced colleagues, particularly focusing on practical aspects of operational grant management.

For future research, several areas warrant investigation. First, longitudinal studies should be conducted to examine the long-term impact of operational grants on school performance and sustainability. Research should also explore the role of technology in enhancing financial prudence and

investigate best practices in operational grant management from other countries that could be adapted to the Kenyan context.

Studies examining the relationship between operational grant management and academic performance would provide valuable insights into the broader impact of financial prudence. Additionally, research into the effectiveness of different financial management training programs would help inform professional development policies.

The implementation of these recommendations requires collaboration among various stakeholders, including the Ministry of Education, school administrators, and financial management staff. Regular review and adjustment of these recommendations will ensure their continued relevance and effectiveness in promoting financial prudence in secondary schools.

To support these changes, the Ministry of Education should establish a dedicated unit for financial management capacity building in schools. This unit would be responsible for developing training materials, conducting workshops, and providing ongoing support to school financial managers. Regular evaluation of the implementation progress and impact of these recommendations will ensure continuous improvement in operational grant management and financial prudence in secondary schools.

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